



Nebraska Department of Health and Human Services



HEALTH ALERT NETWORK

Update

TO: Nebraska Healthcare Providers & Laboratories
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RE: 2009-10 Influenza Season Update: Epidemiology, Lab Testing,
Antiviral & Vaccine Guidance
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The Nebraska Department of Health and Human Services Division of Public Health (NDHHS-DPH) continues to work closely with our local health department (LHD) partners in addressing the various issues raised by the 2009 H1N1 flu virus. This Health Alert Network Update provides updated information and guidance regarding epidemiology, lab testing, antiviral use, and influenza vaccine.

Epidemiology

Nebraska surveillance data indicate that influenza activity has dropped to a level below our tracking system's ability to detect it, and may have totally disappeared from the state. This is based on 1) weekly surveillance of 81 Nebraska laboratories performing rapid influenza tests; 2) weekly surveillance of designated primary care physicians across the state who track influenza-like illness (ILI) in their practices; and 3) weekly surveillance of Nebraska hospital ILI admissions.

- Since early September, 2009, **all but one** (which was an influenza A H3 subtype in September 2009) influenza A viruses subtyped at NPHL have been the 2009 influenza A (H1N1) strain (n=523). These isolates are susceptible to oseltamivir (Tamiflu), zanamivir (Relenza), and peramivir but not to the adamantanes (Amantadine and Rimantadine). Rapid influenza testing has continued to decrease around the state, with fewer than ten positive tests per week. Many of these are likely false-positives. Fewer than 10 specimens are being submitted weekly to the Nebraska Public Health Laboratory (NPHL) for confirmatory PCR testing. The last positive specimen confirmed by PCR testing was collected on Feb 19, 2010, and was the pandemic 2009 strain of influenza A H1N1. The previous positive specimen prior to that was collected on January 19, 2010, and was also the pandemic strain.
- On a weekly basis, a select group of Nebraska physicians (n=18) participate in the Outpatient Influenza-like Illness Surveillance Network (ILINet). The sentinel providers report data to CDC on the total number of office visits together with the number of those patients with ILI, by age group. The data reported by these physicians shows a marked drop-off in ILI activity. The current percentage of ILI documented by ILINet providers, for week ending February 27, 2010, is 1.87%, which reflects a baseline level recorded during periods with little to no circulating influenza.

Recommendations for Laboratory Testing

Given the apparent disappearance of influenza from the Nebraska population, our new public health goal is to **carefully monitor for the re-introduction (third wave) of influenza.**

Providers should remain vigilant to this possibility, should collect a rapid test on any person (hospitalized or outpatient) suspected of influenza, and should forward a naso-pharyngeal sample to the NPHL on **any** patient with a positive rapid flu test, or **any** patient strongly suspected of influenza, regardless of the result of the rapid flu test. A public health requisition must be submitted with the specimen, including the completion of the epidemiology questions at the bottom of the form,

(<http://www.dhhs.ne.gov/puh/epi/flu/docs/flunphltestrequisition.pdf>); keep the specimen refrigerated and in viral transport media following collection; do not delay in shipping to NPHL (contact NPHL client services for advice on expedited courier service 1-866-290-1406). Commercial laboratory testing for influenza PCR (LabCorp, Quest/Focus Laboratories and other in-state facilities) and respiratory viral culture is currently available, and should be utilized if possible.

Recommendations for Vaccination

CDC flu experts have recently expressed concerns about a resurgence of influenza. It is impossible to know if or when there will be another wave of 2009 H1N1 flu. The flu season may not be over for this year, and H1N1 flu could still return. CDC estimates that at least half the population remains susceptible to the flu. Some scientists predict that if the virus returns, it won't be as severe as last fall, since millions of people are immune now, either because they were sick or have been vaccinated. Vaccine for 2009 H1N1 flu is still being administered, and next year's shot will include protection against this strain, along with two other seasonal viruses. Alternatively, the H1N1 virus could mutate and make the current vaccine, as well as next fall's version, less effective.

Vaccination still remains the most effective means of preventing influenza. Vaccine should continue to be made available through provider offices, retail settings, and health departments. At this point, targeted outreach may be the most appropriate strategy, (e.g. to those at high risk of severe illness, to parents of young children who need to return for the second dose of vaccine, minority and hard-to-reach populations, college and university students, and people 65 years and older. Both the seasonal (trivalent) vaccine and the monovalent pandemic H1N1 vaccine can be provided **to all persons** who seek the vaccine provided they lack contraindications to the vaccine as stipulated in the package insert.

WHO and FDA have recommended vaccine strains for the 2010-11 Northern Hemisphere trivalent influenza vaccine contain A/California/7/2009-like (2009 H1N1), A/Perth/16/2009-like (H3N2), and B/Brisbane/60/2008-like (B/Victoria lineage) viruses. A seasonal influenza A (H1N1) component is not included in the 2010-11 formulation and the A (H3N2) component has been changed from the 2009-10 Northern Hemisphere vaccine formulation. The influenza B component will be the same as the current 2009-2010 seasonal vaccine. This recommendation was based on surveillance data related to epidemiology and antigenic characteristics, serological responses to 2009-10 trivalent seasonal and 2009 H1N1 monovalent vaccines, and the availability of candidate strains and reagents. For the 2010-2011 influenza season, **recommendations for annual influenza vaccination have been expanded to include all people aged 6 months and older.** The new recommendation seeks to remove barriers to influenza immunization and signals the importance of preventing influenza across the entire population.